WHAT IS CLAIMED IS:

1.   A base station for providing a packet data service to a mobile station using at least one Walsh code of a plurality of quasi-orthogonal Walsh codes or a plurality of orthogonal Walsh codes to increase a data rate in a mobile communication system where the base station assigns the plurality of orthogonal Walsh codes to the mobile station, comprising:

an orthogonal Walsh code space information(WSI) generator for generating information about the orthogonal Walsh codes for the packet data service ;

a carrier-to-interference (C/I) acquirer for receiving C/I information from the mobile station ;

a first determiner for receiving the orthogonal Walsh code information and the C/I information from the orthogonal Walsh code space information generator and the C/I acquirer and determining a first data rate of the case that use the orthogonal Walsh codes ;

a second determiner for receiving the C/I information from the C/I acquirer and determining a second data rate of the case that use the quasi-orthogonal Walsh codes ; and

a data rate selector for selecting a higher data rate of the first data rate and the second data rate .

2.   The base station of claim 1, further comprising a power reduction factor calculator for calculating a power reduction factor by which transmission power is decreased when using the quasi-orthogonal Walsh codes and outputting the power reduction factor to the second determiner to determine the second data rate.

3.   The base station of claim 1, further comprising an information

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transmitter for generating information about the data rate selected by the data rate selector and quasi-orthogonal Walsh code usage state information that indicates whether the quasi-orthogonal Walsh codes are used or not and transmitting the generated information to the mobile station.

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4.   The base station of claim 3, further comprising a block encoder for encoding the data rate information and the quasi-orthogonal Walsh code usage state information   from the information transmitter, and a signal point mapper for mapping the output of the block encoder.

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5.   A mobile station for determining a data rate for a packet data service using at least one Walsh code of a plurality of orthogonal Walsh codes or a plurality of quasi-orthogonal Walsh codes to increase a data rate in a mobile communication system where the base station assigns the plurality of orthogonal

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Walsh codes to the mobile station , comprising:

an orthogonal Walsh code space information(WSI) receiver for receiving information about the orthogonal Walsh codes for the packet data service ;

a C/I measurer for measuring the C/I of a packet signal received from the

20 base station;

a first determiner for receiving the orthogonal Walsh code information and the C/I information from the orthogonal Walsh code space information receiver and the C/I measurer and determining a first data rate of the case that use the orthogonal Walsh codes ;

25   a second determiner for receiving the C/I information from the C/I measurer and determining a second data rate of the case that use the quasi-orthogonal Walsh codes ; and

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a data rate selector for selecting a higher data rate of the first data rate and the second data rate .

6.   The mobile station of claim 5, further comprising a power reduction factor calculator for calculating a power reduction factor by which transmission power is decreased when using the quasi-orthogonal Walsh codes and outputting the power reduction factor to the second determiner to determine the second data rate.

7.   The mobile station of claim 5, further comprising an information transmitter for generating information about the data rate selected by the data rate selector and quasi-orthogonal Walsh code usage state information that indicates whether the quasi-orthogonal Walsh codes are used or not, and transmitting the generated information to the base station.

8.   The mobile station of claim 7, further comprising a block encoder for encoding the data rate information and the quasi-orthogonal Walsh code usage state information from the information transmitter, and a signal point mapper for mapping the output of the block encoder.

9.   A method for a base station of providing a packet data service to a mobile station using at least one Walsh code of a plurality of quasi-orthogonal Walsh codes or a plurality of orthogonal Walsh codes to increase a data rate in a mobile communication system where the base station assigns the plurality of orthogonal Walsh codes to the mobile station , comprising the steps of:

generating information about the orthogonal Walsh codes for the packet data service ;

receiving C/I information from the mobile station ;

determining a first data rate in the case of using the orthogonal Walsh codes based on the orthogonal Walsh code information and the C/I information;

determining a second data rate in the case of using the quasi-orthogonal Walsh codes based on the C/I information; and

5   selecting a higher data rate of the first data rate and the second data rate .

10.   The method for determining the second data rate of claim 9, further comprising the step of calculating a power reduction factor by which transmission power is decreased when using the quasi-orthogonal Walsh codes and determining

10 the second data rate based on the C/I information and the power reduction factor.

11.   The method of claim 9, further comprising the step of generating information about the selected data rate and quasi-orthogonal Walsh code usage state information that indicates whether the quasi-orthogonal Walsh codes are used or not

15 and transmitting the generated information to the mobile station.

12.   A method of determining a data rate for a packet data service in a mobile station using at least one Walsh code of a plurality of quasi-orthogonal Walsh codes or a plurality of orthogonal Walsh codes to increase a data rate in a mobile

20 communication systems where a base station assigns the plurality of orthogonal Walsh codesto the mobile station , comprising the steps of:

receiving information about the orthogonal Walsh codes for the packet data service ;

measuring the C/I of a packet signal received from the base station;

25   determining a first data rate in the case of using the orthogonal Walsh codes based on the orthogonal Walsh code information and the C/I information;

determining a second data rate in the case of using the quasi-orthogonal

Walsh codes based on the C/I information; and

selecting a higher data rate of the first data rate and the second data rate .

13. The method for determining the second data rate of claim 12,
5 further comprising the step of calculating a power reduction factor by which transmission power is decreased when using the quasi-orthogonal Walsh codes and determining the second data rate based on the C/I information and the power reduction factor.

10 14. The method of claim 12, further comprising the step of generating information about the selected data rate and quasi-orthogonal Walsh code usage state information that indicates whether the quasi-orthogonal Walsh codes are used or not, and transmitting the generated information to the base station.